Patient Health Questionnaire 9 (PHQ-9)

Assessment Overview

Assessment Area

ICF Domain:
Body Function
Subcategory:
Mental Function

You Will Need

Length:
PHQ-9: 5 minutes, 9 items
PHQ-2: Few minutes, 2 items
Scoring:
Items are rated in terms of how persistent the symptoms have been in the past 2 weeks: 0 – not at all, 1 – several days, 2 – more than half of the days, 3 – nearly every day.
Score for each individual item is summed to produce a total score. Higher scores indicate increased severity of depression.

Summary

The Patient Health Questionnaire 9-item (PHQ-9) is a self-report or interview-based screening measure devised to identify probable major depressive disorder (MDD) among adult primary care patients.

Screening by PHQ-9 is compliant with the DSM-IV criteria.

A shorter version (PHQ-2), including two items (depressed mood and anhedonia) from the PHQ-9 has been established (Kroenke et al. 2003) and studied in people with SCI (Poritz et al. 2018), so it could represent an option for use.

Availability

Worksheet:
PHQ-9: Can be found here.
PHQ-2: Can be found for free here:
https://www.albertahealthservices.ca/frm-19825.pdf

Languages: Available in 60+ languages.

Assessment Interpretability

Minimal Clinically Important Difference

Not established in SCI

Statistical Error

Not established in SCI

Typical Values

Mean (SD) Scores:
5.57 (5.74)

(Krause et al. 2009; PHQ-9; n=727; 70.2% males; 53.3% cervical injuries; mean time since injury: 18.2 years)

1.17 (1.95)

(Poritz et al. 2018; PHQ-2; n=116; 96.6% males; ASIA A-D)

Threshold Values:
Not established for SCI. But for the general population, a score of ≥ 10 has been reported to indicate major depression

(Kroenke et al 2001; n=6000)

Measurement Properties

Validity – **Low** to **High**

Moderate inverse correlation with the "subjective health" item from the Short Form-36:

ρ = -0.5

(Bombardier et al. 2004; PHQ-9; n=849; 645 males, 204 females; 47.6% ASIA A; 45.5% paraplegia; all 1 year post-SCI)

Low to Moderate correlation with Satisfaction with Life Scale (SWLS):

PHQ affective items: ρ= -0.368 to -0.463

PHQ somatic items: ρ= -0.248 to -0.415

(Richardson & Richards 2008; PHQ-9; n=2570; 2013 males; time post-injury range = 1-25 years)

ρ: -0.477 (P<.0001)

(Krause et al. 2009; PHQ-9; n=727; 70.2% males; mean age: 47.9 years; mean time since injury: 18.2 years; 53.3% cervical injury)

High correlation with the Hamilton Depression Rating Scale:

Convergent Validity: r = 0.713 (P<0.001)

Discriminatory validity, between depressed SCI persons and non-depressed SCI subjects: (11.8+5.2 vs. 5.8+4.5; P<0.001)

(Summaka et al. 2019; PHQ9-Arabic version; n=51; 51 males; mean age: 37.2 (12.6) years; 37 paraplegia, 14 tetraplegia)

High correlation with Major depressive disorder:

r = 0.530 (P<0.001)

(Krause et al. 2009; PHQ-9; n=727; 70.2% males; mean age: 47.9 years; mean time since injury: 18.2 years; 53.3% cervical injury)

Low correlation with Connor-Davidson Resilience Scale (CD-RISC-8):

Correlation = -0.39 (P<0.001)

(Chiu et al. 2024; PHQ-9; n=93; 58 males; mean (SD) age 44.10 (16.20) years; mean (SD) time since injury: 2.43 (8.29) years)

Number of studies reporting validity data: 8

Reliability – **High**

High Internal Consistency:

α = 0.71-0.87

(Richardson & Richards 2008; PHQ-9; n=2570; 2013 males; time post-injury range = 1-25 years)

(Summaka et al. 2019; PHQ9-Arabic version; n=51; 51 males; mean age: 37.2 (12.6) years; 37 paraplegia, 14 tetraplegia)

High Test-Retest Reliability:

ICC = 0.88 (0.711-0.955); P < 0.001

(Summaka et al. 2019; PHQ9-Arabic version; n=51; 51 males; mean age: 37.2 (12.6) years; 37 paraplegia, 14 tetraplegia)

Number of studies reporting reliability data: 4

Responsiveness

Floor/Ceiling Effect:
Floor: 22% reported no depressive symptoms

(Williams et al. 2009; PHQ-9; n=202; 77% males; median time since injury: 7 years)

Effect Size:
Not established in SCI

Number of studies reporting responsiveness data: 1